

ATTENTION: Always refer to the most current technical information available at www.lonseal.com, and review completely prior to starting the job. Lonseal reserves the right to change its products' design and material, or to improve products or processes at any time without notice. Installation procedures and use of Lonseal products must be in strict accordance with Lonseal's technical documentation for warranty terms to be valid.

DESCRIPTION: A vinyl welding thread, 4 mm in diameter, which comes color matched to the corresponding, chosen Lonseal flooring material (when applicable).

USE: For heat welding seams of Lonseal flooring.

ADVANTAGES:

- ▶ Recommended for high traffic locations or floors subjected to heavy rolling loads
- ▶ Recommended for healthcare installations or areas that have sanitary requirements
- ▶ Recommended for floors exposed to excess moisture

PREPARATION:

- ▶ Ensure that all seams are free of contaminants such as dirt, dust, and moisture.
- ▶ Wait 24 hours after installation to perform any heat welds. If heat welding is to occur within 24 hours of the flooring installation, then Lonseal Double Face Tape (DFT) should be placed underneath all seams. Except as follows:
 - ▷ Since DFT cannot be placed at curved seams or insets, or in locations where Lonseal #650 Two-Component, Solvent-Free Epoxy is used, heat welding must occur 24 hours after flooring installation, without exception.
- ▶ Seams may be abutted factory edges, trimmed with a vinyl edge trimmer, or double- or underscribe-cut. The gap between the two sheets should be as minimal as possible.

IMPORTANT:

- ▶ Use only equipment specifically designed for heat welding sheet vinyl flooring.
- ▶ Practice the methods noted below on scrap material prior to application to ensure familiarity with the tools and materials involved.

APPLICATION:

1. Using a straight edge and a grooving tool equipped with a #4 (4 mm) blade, groove the seam to a depth of approximately 2/3 the thickness of the flooring or half the thickness of the welding thread (2 mm), whichever is less. Take care not to go completely through the backing layer. This depth should be kept consistent across the entire seam. If using a power groover, be sure to leave a small gap at the seams, about the thickness of a credit card, for the tool to follow.
2. Heat gun temperature should be 650 – 700 °F (343.3 – 371.1 °C), depending on the ambient conditions. To verify the optimal temperature, hold the assembled heat gun (with nozzle and proper tip) close to a scrap piece of thread, but not quite touching it. Adequate heat will cause the thread to melt, but not burn.
3. After allowing the heat gun to pre-heat to the desired temperature, insert the welding thread into the nozzle, and then bring the thread into contact with the grooved seam.
4. Keeping the bottom of the nozzle parallel with the floor, apply slight downward pressure, and draw it along the seam at a smooth and constant speed. Some products will develop a slight glaze on either side of the seam, which is normal (see **Notes** below). Upon application of the floor finish, this visual effect will be greatly diminished or eliminated.
5. If stopping at any point along the seam, pull the heat gun away from the flooring, and cut the welding thread. This will prevent the heat gun from scorching the surface of the flooring and welding thread.
6. Once completed, test seam strength by tugging at a length of welding thread. If fused properly, it should break before pulling away from the seam.
7. Allow the thread to cool to room temperature before proceeding.
8. Once cooled, the welding thread may be trimmed and skived, which is done in two passes.
9. For the first pass, use a trim plate and crescent knife to trim the top of the welding thread.
10. For the second pass, use only the crescent knife and trim the welding thread flush with the surface of the flooring. Ensure that the knife is flush with the flooring for a smooth seam. Note that for embossed products, the thread can only be skived to the top of the embossing.
11. Glazing of the welding thread is required for select products to ensure correct color matching of the thread to the material, and prevent the seam from collecting excessive soiling. Refer to **Notes** below for more information on welding threads that require glazing. To glaze the thread, draw the heat gun along the seam, with the nozzle approximately 1/8 – 1/4 in. (3.1 – 6.4 mm) above the thread. Move the gun slowly enough to glaze the surface of thread, but fast enough to avoid damaging the flooring on either side. This may require a reduction in the temperature of the heat gun.

URETHANE FINISHED FLOORING (E.G. TOPSEAL): Use of the urethane nozzle (Lonseal Part ZZ65) is required for heat welding this type of flooring. Failure to use this nozzle may result in blistering or scorching of the urethane finish on either side of the seam. When using this nozzle, the heat gun must be set at a higher temperature, 750 – 800 °F (398.9 – 426.7 °C), and moved at a slower pace. Automatic welding machines are not recommended, unless the nozzle has been determined to be suitable for urethane finishes. Test thoroughly on scrap material prior to use, to ensure that the seams may be completed as noted above without damage to the flooring. The suitability of the automatic welding machine will be the responsibility of the installer.

NOTES:

- A. Do not leave seams unprotected. Apply masking or painter's tape over seams before leaving the job for the day to help prevent seam contamination.
- B. Use of welding nozzles larger than 4 mm will cause improper bonding or permanent damage to the flooring, including burning and blistering.
- C. During welding, the thread may have ridging, also known as wash, on either side. This is normal and will be removed after trimming and skiving.
- D. Keep the trim plate and trim or crescent knife smooth, clean, and free of burrs to avoid scratching the surface of the flooring.
- E. Attempting to trim or skive the welding thread before it has cooled, or to complete this procedure in one pass, can result in a concave seam. Concave seams will collect soiling, resulting in unsightly seams and maintenance issues.
- F. Welding thread for pearlescent and metallic patterns may not match the surface appearance due to the limitation of thread composition, which can cause the completed seam to stand out in contrast to the flooring.
- G. The urethane nozzle (Part ZZ65) may be used on unfinished floors where the glazing that can normally occur at the sides of the seams with the standard speed nozzle (Part ZZ27) is unwanted. Instructions for use of the urethane nozzle will be as noted above under **Urethane Finish Flooring**.
- H. Many of Lonseal's welding threads now use our RapidThread formulation which eliminates the need for glazing. A complete list of available welding threads and their corresponding flooring are shown in the **Welding Thread List**. All welding threads in the list shown in bold must be glazed. All others may be left unglazed. Glazing RapidThread will not have any negative impact on performance, but the thread may no longer color match the flooring.

CLEAN UP: Dispose of any scrap in an environmentally safe manner.

LIMITATIONS: Certain products are too heavily embossed to be heat welded properly.

PHYSICAL PROPERTIES:

- ▶ **Color:** Varies
- ▶ **Shelf Life:** Indefinite, when stored properly
- ▶ **Storage Conditions:** 65 °F – 85 °F (18.3 °C – 29.4 °C); keep dry and out of direct sunlight.
- ▶ **Application Conditions:** 65 °F – 85 °F (18.3 °C – 29.4 °C)
- ▶ **Coverage:** 500 linear feet per spool